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CONFERENCES IN 2016

2016 APHL Annual Meeting & Ninth Government Environmental Laboratory Conference

Albuquerque Convention Center,
Albuquerque, NM

JUNE 6 - 9, 2016

Council of State and Territorial Epidemiologist (CSTE) Annual Conference

Anchorage, AK

JUNE 19 - 23, 2016

Association of American Feed Control Officials (AAFCO) Annual Meeting (joint with AAPFCO)

Anchorage, AK

JULY 31ST - AUGUST 5TH, 2016

CDC Public Health Informatics Conference

Atlanta, GA

AUGUST 21 - 24, 2016



NEW ELEXNET HELP DESK CONTACT INFORMATION

For support with eLEXNET, contact Sacha Klein or Teresa Li with the Help Desk at:

- Flexnet_help@fda.hhs.gov
- 703-377-2000

NEWSLETTER - SPRING 2016

FDA MESSAGE

The Electronic Laboratories Exchange Network (eLEXNET) system is instrumental in addressing the Food and Drug Administration's (FDA's) strategic initiative of building an Integrated Food Safety System (IFSS) as part of the Partnership for Food Protection (PFP) program. The system also provides key tools that ensure compliance with the Food Safety Modernization Act (FSMA), which mandates a shift from post-outbreak reaction to early detection and prevention of food contamination. Currently, FDA is planning the next round of eLEXNET upgrades, which include site redesign, an improved data exchange, granular data sharing, and dynamic site content. The goal is to ensure the system receives better quality of food testing data, increase participation with the labs, and ultimately become the platform for a faster foodborne outbreak prediction, prevention and investigation.

FDA's eLEXNET system houses nearly 1 million food and feeds sample testing data from more than 300 local, state and federal laboratories in an integrated and secure network. In its current state, the eLEXNET system has powerful tools and resources. These include the Interactive Data Analysis Tool (IDAT), which allows users to view, conduct analysis, query reports and extract laboratory data using maps, charts and reports. Consequently, laboratory analysts, epidemiologists and risk assessors from across the food safety community can utilize this data to address food safety issues and prevent possible outbreaks. Additionally, the eLEXNET team continues to foster collaboration among eLEXNET communities to significantly increase the value for labs and strive to become the central integration point for collaboration and facilitate better decision making for the broader food safety community.



The FDA eLEXNET Leadership: (from left) LCDR Solomon M. Tadele, CDR Mivoyel "JP" Jean Paul, Rahsaan Tabb

2016 ELEXNET LAB VISIT & TRAINING

Colorado Department of Agriculture

Connecticut Agricultural Experiment Station/Department of Analytical Chemistry

Hawaii Department of Health State Laboratories Division

Nevada State Public Health Laboratory

Texas Department of State Health Services

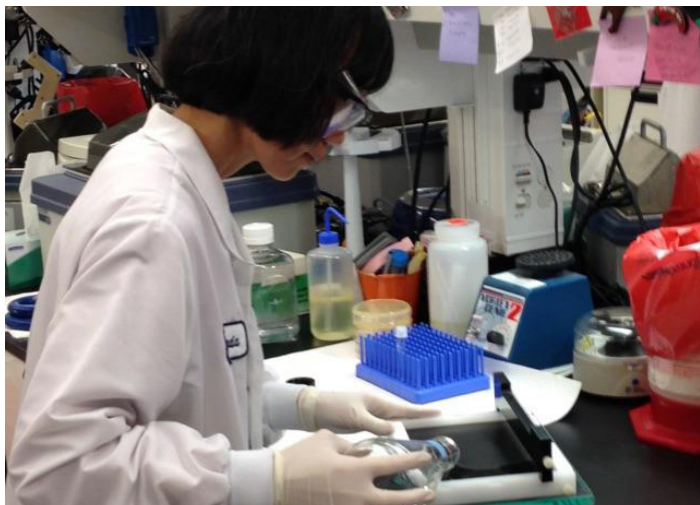


WELCOME ELEXNET'S NEW PROGRAM MANAGER

LCDR Solomon M. Tadele is currently serving in the Commission Corps of the United States Public Health Service (USPHS). In his assignment with the Food and Drug

Administration (FDA), LCDR Tadele is serving as the Business Program Manager (BPM) of FDA's Electronic Laboratory Exchange Network (eLEXNET). Among his several duties, LCDR Tadele manages the eLEXNET outreach and training efforts with multiple state labs, in collaboration with the Booz Allen Hamilton support team, the Association of Public Health Laboratories (APHL) and other stakeholders. This effort has been instrumental in addressing FDA's strategic initiative of building an Integrated Food Safety System (IFSS) through the Partnership for Food Protection (PFP) program. It also ensures adherence to the mandates of the Food Safety Modernization Act (FSMA). LCDR Tadele has been with the eLEXNET team since May 2015.

In his previous duty at the National Oceanic and Atmospheric Administration (NOAA), LCDR Tadele was responsible for managing the IT Security Program in the Office of Marine and Aviation Operations (OMAO), where he oversees several processes and service improvements that resulted in reduced risk acceptance and enhancement of the overall IT security posture.



LCDR Tadele played a critical role in fostering collaborative relationships and created a shared vision among OMAO System Owners and Information System Security Officers (ISSOs). He also demonstrated effective program management skills by establishing and tracking goals and metrics, and by providing informative status briefings to leadership. Consequently, he allowed OMAO to exceed the IT Security targets established by the Department of Commerce and NOAA.

LCDR Tadele was commissioned as the USPHS Corps officer in August, 2007. Throughout his commission, he consistently demonstrated maturity and leadership ability that is commensurate with higher rank officers. He assumed and performed an array of duties at a superior level. LCDR Tadele is known among coworkers and supervisors for his quick learning ability and expertise to adapt to a rapidly changing environment.

As a junior officer, LCDR Tadele started his assignment within the Office of Secretary, Health and Human Services (HHS) in two different fields. In his first assignment, LCDR Tadele served as the telecommunication officer within the office of Assistant Secretary for Preparedness and Response (ASPR). In this capacity, he played a crucial role to support health service officers deployed in response to natural disasters nationally and abroad, such as the 2010 Haiti Earthquake. LCDR Tadele also served as the Communications Security Officer, within the Office of Security and Strategic Information (OSSI), where he provided assistance to various HHS Operating Divisions (OPDIVS) for planning, procurement, setup and configuration of appropriate level communications security equipment suitable to the mission of the agency.

Prior to joining the USPHS, LCDR Tadele served in the US Navy on active duty for over five years. During this time, he performed numerous duties in various command posts, including his last assignment as the Supply Officer in the Periodontics Department, at the then National Naval Dental Center, in Bethesda, MD. LCDR Tadele earned a master's degree in Software Engineering and Bachelor's in Mathematics. His favorite hobbies include, playing soccer, running and reading about history, global affairs and future social trends. Currently, LCDR Tadele resides in Alexandria, VA with his wife Eleni Bekele.

LAB FEATURE ARTICLE:

LAB FEATURE ARTICLE: VIRGINIA DIVISION OF CONSOLIDATED LABORATORY SERVICES (VA-DCLS)

An important contributor of eLEXNET data since 2012, the Virginia Division of Consolidated Laboratory Services (VA-DCLS) was selected as a featured organization in this newsletter edition. The DCLS is a division of the Virginia Department of General Services (DGS) that was formed in 1972 when laboratories from several Virginia agencies were combined to provide more efficient and cost-effective testing. The DCLS was the first consolidated laboratory in the nation and offers a wide variety of analytical testing in support of state programs. The eLEXNET team recently sat with Dr. Denise Toney (Lab Director), Dr. Angela Fritzing (Lab Deputy Director), Dr. Lauren Turner (Lead Food-borne Scientist) and Dina Potter (Director of Communication) to learn more about their lab and the type of activities it engages.

WHAT WE LEARNED

The DCLS provides analytical testing services for 26 state agencies of the Commonwealth of Virginia, local government, federal agencies and other states as well as a wide variety of other samples such as, gasoline, animal feeds and fertilizers, lottery tickets, and blood specimens from all infants born in Virginia. The DCLS performs over 7 million tests a year and over 700 analytical methods to help ensure safety and health for Virginia's citizens and its environment. Other DCLS services include examination of human specimens for evidence of outbreaks and emerging infectious diseases. Some of these diseases include: Severe Acute Respiratory Syndrome (SARS), West Nile Virus, and Monkeypox. Also DCLS provides environmental samples in support of environmental protection activities for the Department of Environmental Quality (DEQ), and agricultural products to assure quality for the Virginia Department of Agriculture and Consumer Services (VDACS). The laboratory also tests commercial products purchased by Virginia agencies to assure that those materials meet agreed on specifications.



DCLS scientist, Robert Barnes, prepares samples and an agarose gel for pulsed-field gel electrophoresis (PFGE).

As the state laboratory, the DCLS is also responsible for ensuring effective laboratory response in the defense of the Commonwealth against terrorism. They were one of the first state laboratories in the United States selected to provide laboratory support to the CDC for testing nerve agents, mustards and other chemical agents in biological specimens. The DCLS is a member of the Laboratory Response Network (LRN) and the Food Emergency Response Network (FERN). The DCLS uses eLEXNET as required by FERN when they need to access the reference methods for the network, or utilize different resources for various working groups. They maintain a vast array of technologies and since September 11, 2001, have used these to test tens of thousands of clinical and environmental samples suspected of being contaminated with biological or chemical agents.

As with several other eLEXNET participating labs, the DCLS is also in the fourth year of an International Organization for Standardization (ISO) cooperative agreement award to bring on ISO accreditation. In addition to FERN-related activities and eLEXNET also conducted data submissions under the ISO agreement, DCLS has also engaged in a manufactured foods



regulatory program standard sampling plan with the VDACS. The samples received under the ISO agreement are also entered into eLEXNET in real-time, enabling these results to be shared with the broader food safety community.

The DCLS is part of the FDA Rapid Response Team (RRT) for Virginia. Within their RRT relationship, the DCLS has directed sampling and testing of high-risk foods. Results related to RRT testing were entered in eLEXNET providing an opportunity to share the data with the broader community. Also, as a part of the ISO cooperative agreement, the lab conducted testing on ISO samples that were submitted to the DCLS which resulted in six recalls that were recognized and accepted by FDA. All the test results were also entered in eLEXNET and are available to the eLEXNET community.

Moving forward the VA DCLS will resume efforts on automating submission of their data to eLEXNET. This next step will help them to decrease the amount of time required for each data submission, which in turn will allow them to submit even more data to eLEXNET. We at eLEXNET, are very much looking forward to working with the VA DCLS on this data automation effort!



Scientists read culture plates and biochemical reactions during a Laboratory Response Network (LRN) Conventional Methods Training hosted at DCLS.

SPOTLIGHT



RANDY TREADWELL - Animal Feed/Rapid Response Team Program Manager

For the past seven years Randy Treadwell has been a key contributor to the food safety industry, serving as the Animal Feed/Rapid Response Team (RRT) Program Manager at the Washington State Department of Agriculture (WSDA). The RRT is a joint effort between the WSDA and the Food and Drug Administration (FDA), working in conjunction with the FDA Seattle District Office, Washington State Department of Health, and other public health partners to improve the efficiency of food/feed-related emergency response. Randy is responsible for the development and continuous improvement of the Washington State RRT and works in collaboration with federal, state, and local food/feed response partners. He commented that the FDA's eLEXNET system is a great tool for the RRT to gather results from state and national sample tests to review historical trends during a response and for routine feed sample planning. These successful partnerships have enabled the Washington RRT to expedite several multi-agency responses, which have helped the public avoid prolonged exposure to contaminated food and feed.

Randy's hard work has not gone unnoticed. In 2012, the FDA presented him with the Leveraging/Collaboration Award for his work on the RRT and he later received the WSDA Customer Satisfaction Award in 2015.

His favorite food is his wife's homemade cinnamon rolls and his cat's favorite food is freeze dried salmon. One of his proudest professional moments is "to see everyone (RRT Team) gather in the room and see the wonderful relationships and programs they've built as an RRT family."

His favorite quote truly reflects the importance he puts in teamwork and success: "If you want to go fast, go alone. If you want to go far, go together." – African Proverb

THE ELEXNET DATA EXCHANGE (DX) PROGRAM

The most efficient and accurate way for labs to share data with the food safety community.

BACKGROUND

As part of the Food and Drug Administration (FDA) Food Safety Modernization Act, signed by President Obama in 2011, the FDA's approach to food-borne illness shifted from post-outbreak reaction, to early detection and prevention of contamination. As part of this effort, eLEXNET became the central food-testing repository that allows for the sharing of food testing data among various government agencies in a timely manner. This effort continues to provide a key tool in early detection of food related outbreaks.

The role of eLEXNET in meeting this government goal is through a timely, efficient and accurate accumulation of data from labs. The timely or near real-time transfer of data supported by the Data Exchange program reduces the crucial time from sample collection to the publication of these results.

The eLEXNET team created the Data Exchange program to simplify the transfer of data from the lab's database to eLEXNET, via an upload utility installed on the lab's machine. In addition to the benefits of being an active eLEXNET food safety lab, this upload utility provides the following advantages:

ACCURATE DATA

The data extract from the Laboratory Information Management System (LIMS) ensures that the data is pre-formatted to be received and accepted by eLEXNET. Automating data entries prevent against errors resulting from manual data entries



The eLEXNET Data Exchange (DX) program has been installed at multiple state and federal laboratories and receives an average of 2,700 tests daily.



DCLS scientist, Mary Scoble, performs biochemical analysis of a Salmonella isolate.

TIMELY TRANSFER

The automated Data Exchange task can be scheduled on an ongoing basis, ensuring immediate transfer of critical data to eLEXNET. During a potential outbreak this could help save crucial time

STANDARDIZING DATA

By performing a one-time mapping of certain data elements (i.e. Analytes, Products) to FDA standard naming conventions we will ensure that all data in eLEXNET is standardized, consistent, and therefore has the integrity to provide value to the food safety community

WHAT IS THE DATA EXCHANGE (DX) PROGRAM?

Data Exchange (DX) is a fully automated mechanism that allows labs to push data to eLEXNET seamlessly without human intervention. This process involves extracting the lab's data from the lab's LIMS in either Excel or XML format, and submitting it to eLEXNET on an automatic basis. Working with the lab's IT resources, the eLEXNET Team builds and installs an upload utility on the lab's machine, whose job is to submit data extracts to eLEXNET. This data extract requires minimal time and effort from the participating lab.



WHO IS PARTICIPATING?

A large number of federal, state, local, regional, military, and university food testing labs are currently sharing data daily with eLEXNET through the Data Exchange program. eLEXNET is continuously expanding its network by integrating newer labs every week. All food testing labs, regardless of their test volume, can participate in this program.

WHAT DATA CAN LABS SHARE WITH ELEXNET?

Through the Data Exchange program, eLEXNET is capable of capturing food safety samples and analysis data on most analytes including microbiological analytes, parasites, chemical analytes, and Radionuclide Mycotoxins. eLEXNET captures all verifiably and scientifically valuable food testing data. eLEXNET does not capture proprietary information such as grower name or manufacturer address.

For each food test, eLEXNET is capable of capturing over 100 different data fields, however only 20 fields are mandatory, including Lab name, unique sample ID, product name, collection date and location, analyte, and test results.

HOW DOES IT WORK?

At a high level, food-testing data from the laboratory data repository (i.e. LIMS, database, spreadsheet) is extracted into an Excel or XML format, encrypted, and transferred to eLEXNET via secure HTTPS protocol. eLEXNET then validates the fields, stores the data, and then makes the information available to all users via the eLEXNET reporting tool.

INTERESTED IN PARTICIPATING IN THE ELEXNET DX PROGRAM?

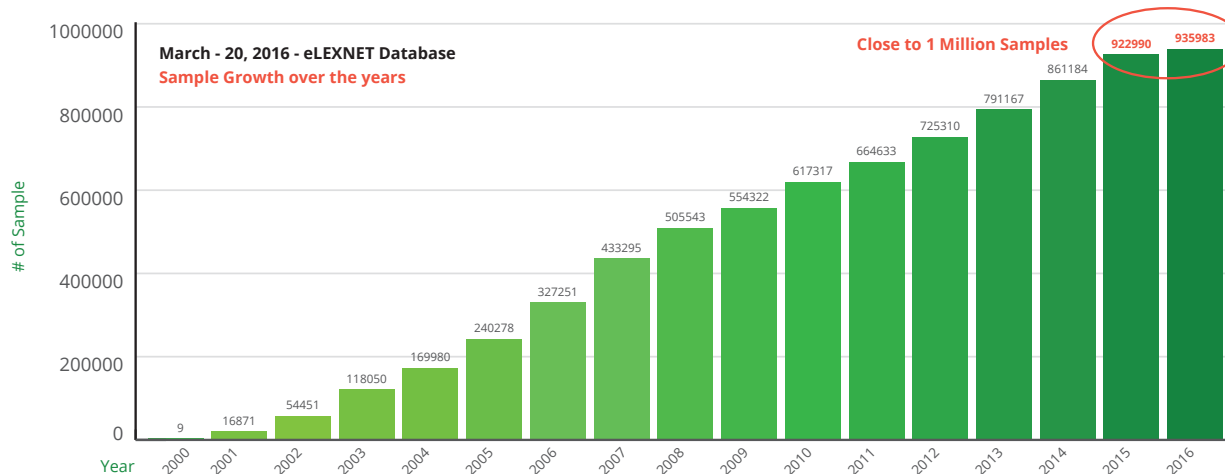
Should your lab have an interest in participating in the eLEXNET Data Exchange Program, or just want to learn more about the program, feel free to contact the eLEXNET Help Desk at ellexnet_help@fda.hhs.gov or (703) 377-2000. We will be happy to schedule a lab onboarding session to discuss and plan for the integration of your lab!

eLEXNET

STRIVING FOR BETTER FOOD SAFETY - ONE SAMPLE AT A TIME

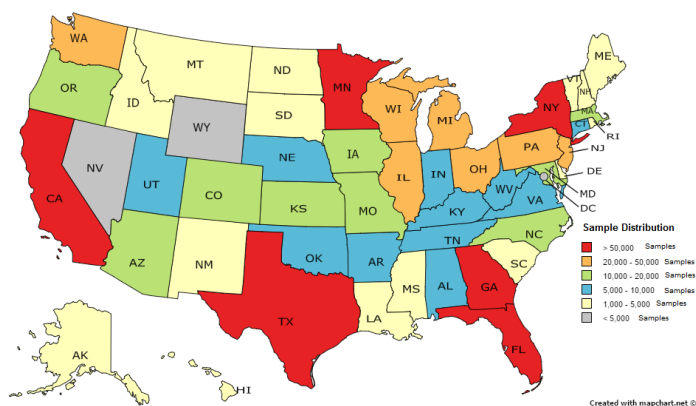
eLEXNET started its journey in 2000 with only 9 samples in the database. In fact, the very first sample ever submitted in eLEXNET was a "Raw Chicken" sample collected by MDPH State Public Health Laboratory from a Mobile Cart in Boston on May 13, 2000. From there onward, eLEXNET had a steady growth in samples over the years and now inching towards "a million" samples. With a lot more labs gearing up to integrate with eLEXNET this year, the system will likely cross one million samples before the end of this year.

For the current 936K samples, eLEXNET houses more than 6.5 Million test results covering over 25K products and 4K analytes. The vast volume of eLEXNET samples are collected from all over the country with California, Texas, Minnesota, Georgia, New York and Florida taking the lead.



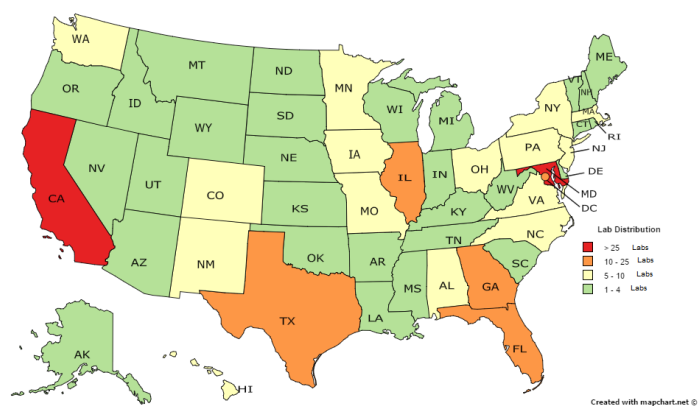


SAMPLE DISTRIBUTION ACROSS THE STATES



Lab and user membership has grown significantly over the past years as well. Currently there are over 4,000 users from 306 labs registered representing all 50 states.

LAB DISTRIBUTION ACROSS THE STATES



The eLEXNET Data Exchange (DX) program has been installed at multiple state and federal laboratories and receives an average of 2,700 tests daily.

SAMPLES COLLECTED ACROSS THE STATES

| | | | | | | | | | | | |
|----|--------|----|-------|----|-------|----|------|----|------|----|------|
| CA | 109224 | WI | 35838 | CO | 11309 | AL | 5507 | MS | 3771 | SD | 2060 |
| FL | 86616 | IL | 25451 | MA | 11230 | TN | 5372 | PR | 3720 | NM | 2029 |
| TX | 67100 | OH | 22504 | MD | 11049 | AR | 5357 | HI | 3156 | AK | 1194 |
| NY | 60484 | PA | 21060 | IA | 10432 | OK | 5341 | ID | 2943 | NH | 1025 |
| MN | 54311 | NC | 14859 | VA | 9465 | CT | 5220 | RI | 2517 | NV | 806 |
| GA | 53007 | OR | 13654 | NE | 8519 | KY | 5033 | VT | 2359 | WY | 576 |
| WA | 40167 | AZ | 12410 | WV | 6570 | SC | 4494 | MT | 2339 | DC | 389 |
| MI | 37665 | MO | 12139 | IN | 6104 | LA | 4407 | ND | 2091 | | |
| NJ | 37354 | KS | 11891 | UT | 5785 | ME | 3858 | DE | 2088 | | |



HERE ARE SOME MORE INTERESTING FACTS ABOUT ELEXNET SHOWING SAMPLE COUNTS FROM VARIETY OF ANGLES:

| TOP 10 INDUSTRY | #SAMPLE |
|---------------------------------|---------|
| Meat, Meat Products and Poultry | 272379 |
| Vegetables/Vegetable Products | 128158 |
| Fishery/Seafood Prod | 74023 |
| Fruit/Fruit Prod | 61999 |
| Misc. Food Related Items | 35717 |
| Mult Food Dinner/Grav/Sauce | 30922 |
| Milk/Butter/Dried Milk Prod | 29178 |
| Cheese/Cheese Prod | 27848 |
| Fruit/Fruit Prod | 26255 |
| Soft Drink/Water | 4331 |
| Vended Water | 4331 |

| TOP 10 ANALYTE | #SAMPLE |
|----------------------------|---------|
| Salmonella spp. | 479623 |
| Listeria monocytogenes | 166509 |
| Escherichia coli, (EHEC) | 123778 |
| Escherichia coli (Typical) | 88513 |
| No Residue Found | 80112 |
| Listeria spp. | 54127 |
| Coliforms | 42893 |
| Chlorpyrifos | 33544 |
| Malathion | 32925 |
| Endosulfan Sulfate | 32337 |
| Vended Water | 4331 |

| TOP 10 PRODUCTS | #SAMPLE |
|--|---------|
| Beef - Chopped Or Ground, Fresh | 84452 |
| Whole Chicken, Rinse | 24921 |
| Pork, Swab | 17931 |
| Steer/Heifer Swab | 10027 |
| Corn Products | 7620 |
| Hamburger, Chopped Beef, Ground Beef | 7566 |
| Beef, Swab | 7559 |
| Pork, Sliced, Diced/Shredded, W/Wo Sauce | 4867 |
| Cantaloupe, Fresh | 4455 |
| Water-Well | 4404 |

| TOP 10 DATA CONTRIBUTING LABS | #SAMPLE |
|---|---------|
| USDA-FSIS Eastern Laboratory | 79596 |
| USDA FSIS OPHS Western Laboratory | 74986 |
| FDA Northeast Regional Laboratory | 68651 |
| USDA, FSIS, Midwestern Laboratory | 66647 |
| FDA Pacific Regional Laboratory Southwest | 52006 |
| FDA Southeast Regional Laboratory | 50773 |
| FL Dept of Agriculture and Consumer Srvs | 50024 |
| USDA-AMS Science Specialty Laboratory | 49271 |
| FDA, Arkansas Regional Laboratory | 47856 |
| Minnesota Department of Agriculture | 44014 |